ABSTRACT

Anthocyanic colorant made of vegetable primary material and process for its production relate to food, cosmetic, pharmaceutical and textile industry and may be used in production of alcoholic and soft drinks, confectionery, products made of sour milk, in coloring of tablet capsules, dying of children's underwear, toys, etc. According to the invention, pelargonidin glycoside was added to the composition of the natural colorant that contained cyanidin glycosides, peonidin glycosides, organic substance and mineral salts. The components percentage shall be as follows, %: cyanidin glycoside 0.1 – 8.6; peonidin glycoside 0.08 – 6.45 pelargonidin glycoside 0.005 – 4.3; organic substance and mineral salts – the rest.

Due to the fact that the colorant solution contains pelergonidin glycoside further to cyanidin and peonidin glycosides, the proposed colorant obtained expanded color spectrum. Combination of these three anthocyans in the proposed colorant provides for the most rich spectrum of red colors. At the same time, the ratio of pelargonidin glycoside : peonidine glycoside: cyanidin glycoside must be 1 : 1.5 : 2, respectively, and it will provide for production of a colorant with a number of valuable physical properties. Namely, the colorant retains red color when pH of the environment is not more than 7, it is thermostable, photostable and maintains its properties during 2 (two) years, besides, its relative optical density is the highest when it is subjected to the light with wavelength of 505 – 515 nm.

According to the invention, process of the colorant production implies that pre-dried vegetable maize-pulp containing anthocyan is grinded, extracted by a mix of aqueous solutions of hydrochloric and citric acids in the field of ultrasonic vibration. Then the extracted coloring matter is filtered and concentrated in vacuum. The primary material is additionally prepared for extraction by infusion of grinded material in extracting agent during 6-8 hours at the temperature of 35-40°C. Extraction may be performed in three steps. Processing for extraction of each lot shall be 30-40 minutes at the temperature of 35-40°C. The process makes the production technology easier and provides for additional source of primary materials. 2 independent claims, 8 dependent claims, 5 tables.